

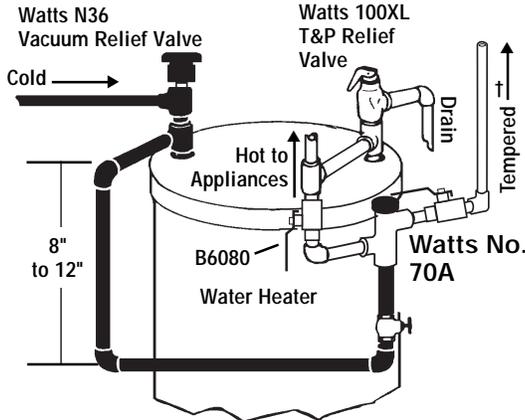
# WATTS Series 70A Installation Instructions

## Hot Water Extender Tempering Valves

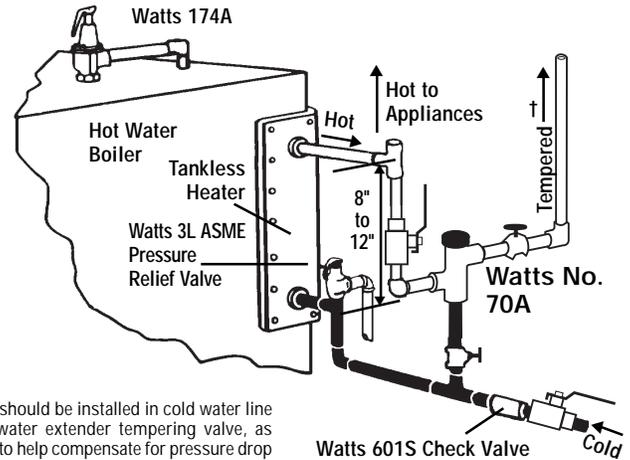
### † WARNING

Do not use Watts Series 70A Hot Water Extender Tempering Valves to temper water at fixtures. Severe bodily injury, i.e., scalding or chilling, and/or death may result, depending upon system water pressure changes and/or supply water temperature changes. ASSE standard 1016 listed devices such as Watts MMV, L111 and USG-B valves should be used at fixtures to prevent possible injury.

The Watts Hot Water Tempering Valves are designed to be installed at or near the boiler or water heater. They are not designed to compensate for system pressure and/or temperature fluctuations and should not be used where ASSE 1016 devices are required. These Watts Valves should never be used to provide "anti-scald" or "anti-chill" service.



**IMPORTANT: BE SURE TO REMOVE THERMOSTATIC ASSEMBLY from valve before sweating connections, otherwise it will become damaged.**



\*A valve should be installed in cold water line to hot water extender tempering valve, as shown, to help compensate for pressure drop through heater.

† Note: Valves listed to ASSE Standard 1016 such as Watts L111, MMV or USG-B should be used at fixture to prevent possible injury.

Minimum Flow Requirements to Maintain Set Temperature: 2 gpm for size 1/2" and 3/4"

### INSTALLATION

(Valve should be installed by a licensed contractor.)

1. Close both the hot and cold water shutoff valves upstream of the valve.
2. Bleed pressure from the system.
3. Remove the thermostat and bonnet assembly (A), which is hand-tight, from body and install valve body as illustrated in diagram. Valve must be trapped as shown.
4. Reinsert Thermostat and Bonnet assembly in body and tighten knurled portion of bonnet securely with pliers or channel locks.
5. **START UP REQUIREMENTS:** Open cold water then hot water shutoff valves. The cold water supply line to Series 70A valve should always be opened first to prevent possible thermostat damage.

### ADJUSTMENT

The Series 70A features a new adjustment means which permits you to "dial" a temperature quickly and conveniently. To increase or decrease the water temperature, simply turn the adjusting cap as indicated by the arrow. The adjustment temperature range is 120°F to 160°F and will vary depending on system water pressure changes and water temperature fluctuations.

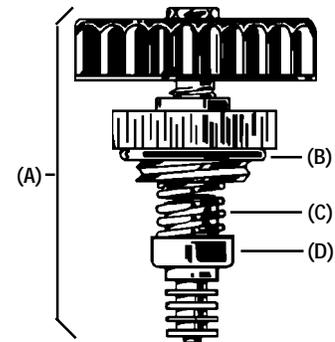
**SERIES L70A:** For lower tempered water or below 130°F, use low temperature Model L70A Series which provides a temperature range between 100°F-130°F.

**NOTE:** Series L70A (low temperature model) may be used in a radiant heat application. Other models of this valve must not be used in radiant heat applications. When installing an L70A valve in a radiant heat application, the components of the radiant heat system must be of materials with a construction of withstanding the high limit output temperatures of the heating boiler. If you are uncertain as to the products adaptability for your application, please consult an authorized representative before installing or using the product.

### CAUTION: Need for Periodic Inspection

Periodic inspection by a licensed contractor is recommended. Corrosive water conditions, temperatures over 210°F, unauthorized adjustments or repair could render the valve ineffective for service intended. Regular cleaning and checking of thermostat assembly (A) helps to assure maximum life and proper product function. Frequency of cleaning depends upon local water conditions. †See Warning.

### Thermostat and Bonnet Assembly



Repair Kit	Model	Ordering Code
70A-RK	fits 70A 70AT	0869100
L70A-RK	L70A L70AT	0869130

Includes O-ring and (B), Spring (C) and Thermostat Assembly (D)

**\*ATTENTION INSTALLER:** After installation please leave this instruction sheet for occupant's information.  
**IMPORTANT:** Inquire with governing authorities for local installation requirements.

### CALIFORNIA PROPOSITION 65 WARNING

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. (Installer: California law requires that this warning be given to the consumer.)

For more information: [www.wattsind.com/prop65](http://www.wattsind.com/prop65)

# Watts 70A Series Troubleshooting Guide

PROBLEM & CAUSE	ANSWER
A. Fluctuating or erratic hot water temperature at fixture. A.1 Heavy draws of either cold or hot water elsewhere in the system, such as clothes washer or dishwasher. A.2 Unbalanced pressures.	A.1 See warning on reverse side. Hot water temperature control valves cannot compensate for this condition. Check valves in hot and cold legs to hot water temperature control valve would help but not cure the problem. A.2 Install balancing or throttling valves (shutoff valves) in hot and cold legs to hot water extender tempering valve and adjust accordingly for demand.
B. Hot water backing up into cold water line. B. Hot water pressure overriding cold pressure.	B. Install check valve in cold water leg to hot water temperature control valve.
C. Cannot adjust water temperature to desired temperature. C.1 Unequal pressures.  C.2 Hot or cold temperature differential.  C.3 Valve undersized.	C.1 A balancing or throttling valve must be installed in the cold water leg to the hot water temperature control valve to throttle or restrict the pressure. In most installations, the cold water supply line feeds both the hot water temperature control valve and the water heater or tankless heater. To compensate for the pressure drop through the heater, the cold water to the hot water temperature control valve must be throttled or reduced. C.2 Check water heater controls to verify that the water temperature is the same as the heater thermostat setting. C.3 Check gpm flow required versus gpm flow capacity of valve.
D. High pressure drop through hot water temperature control valve. D. Valve undersized.	D. Install larger hot water temperature control valve.
E. Insufficient hot water during peak demand E.1 Valve undersized. E.2 Heater or capacity insufficient for demand.	E.1 Check gpm flow required during peak demand period and size hot water temperature control valve accordingly.
F. Frequent failure of thermostatic element. F.1 Thermostatic element exposed to extremely high temperature.  F.2 Corrosive water conditions. (Buildup of mineral deposits) F.3 Electrolysis (pitting deterioration, etc.)	F.1 Check heater thermostat setting. F.1a Hot water temperature control valve must be trapped at least 8" to 12" as per installation instructions. Install check valves as recommended. F.2 Frequent cleaning of thermostat element and plunger would tend to prolong the life of the element. A small coating of FDA approved silicone lubricant in the piston area of the element would also help. F.3 Electrically ground the piping system or install dielectric unions.
G. All hot or cold water flows at hot fixture. G.1 This problem will require considerable troubleshooting met. Minimum flow requirements for 70A series valves is 2 gpm.	G.1 Verify that complete installation instructions were followed: A. Is valve properly trapped? 2. Check to see if thermostatic element has failed. 3. Check to see if temperature control on water heater is set at desired temperature. 4. Check to see if minimum flow requirements for valve size are met. Minimum flow requirements for 70A series valves is 2 gpm.



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Canada: 5435 North Service Rd., Burlington, ONT. L7L 5H7; www.wattscda.com



**LIMITED WARRANTY:** Watts Regulator Company warrants each product against defects in material and workmanship for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. This shall constitute the exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental or consequential damages, including without limitation, damages or other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemicals, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product. THE COMPANY MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED EXCEPT AS PROVIDED IN THIS LIMITED WARRANTY.